



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

## RESPONSE

**Applicant(s):** Allan et al.  
**Serial No.:** 09/675,721  
**Filed:** September 29, 2000  
**For:** Deep UV Laser Induced  
Densification In Silica Glass

Group Art Unit: 1731

Examiner: J. M. Hoffman

#11 A/BM  
10-25-02

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

This is in response to a Restriction Requirement mailed July 17, 2002.

Applicants elect Group II, claims 16-19 and 25-39.

Applicants cancel Group I, claims 1, 14 and 20-24 and Group III, claim 18.

Also, please amend the subject application as follows:

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## IN THE CLAIMS:

A method of writing a light guiding structure comprising:

selecting a silica-based bulk glass substrate material;

focusing a below 300 nm laser within said substrate while translating the focus relative to the substrate along a scan path at a scan speed effective to densify and induce an increase in the refractive index of the material along the scan path relative to that of the unexposed material while incurring substantially no laser induced breakdown of the material along the scan path, said induced increased refractive index scan path comprising an optical waveguide core formed within the bulk glass substrate material with the unexposed material outside of the scan path focus providing an optical waveguide cladding surrounding said formed core.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment(s). The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

Date: Oct. 17, 2002

Date of Deposit: October 17, 2002

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date indicated above with sufficient postage as first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, DC 20231

Signature

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